

METHODS AND SYSTEMS TO COMPENSATE FOR A
STITCHING DISTURBANCE OF A PRINTED PATTERN IN A
MASKLESS LITHOGRAPHY SYSTEM UTILIZING OVERLAP
WITHOUT AN EXPLICIT ATTENUATION

ABSTRACT

A method and system are provided for printing a pattern on a photosensitive surface using a maskless lithography system including a spatial light modulator (SLM). The method includes defining two or more exposure areas within a predetermined region of the surface, each area corresponding to selected pixels of the SLM. An overlap region is formed between the two or more exposure areas, the overlapping region being defined by respective overlapping edges of the exposure areas, the overlapping edges corresponding to overlapping pairs of the selected pixels from each area. The pixels within each pair are alternately activated such that only one of the pixels within the pair is used to produce the pattern.